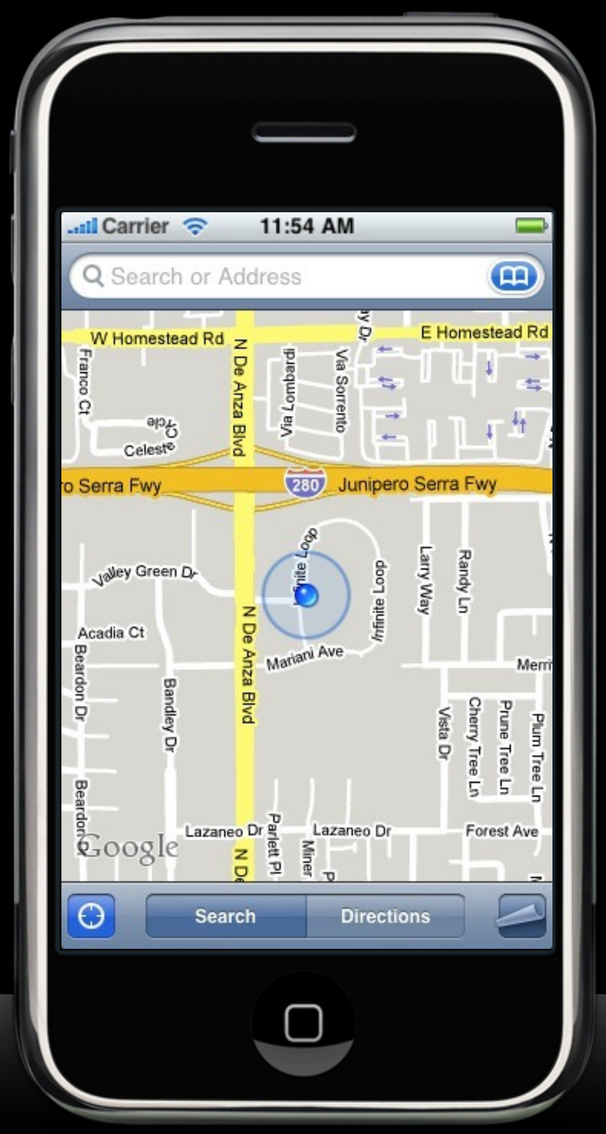
iPhone Application Design Using Interface Builder

Session 410

These are confidential sessions—please refrain from streaming, blogging, or taking pictures.

iPhone Application Design Using Interface Builder

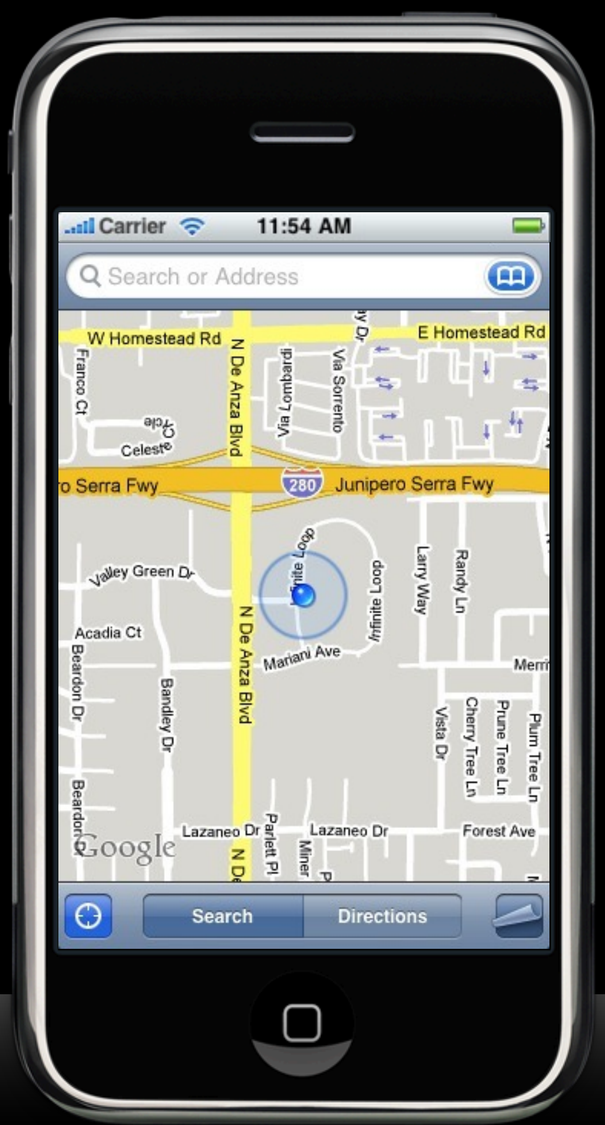
Rob Marini and Matt Gamble
Interface Builder Engineers



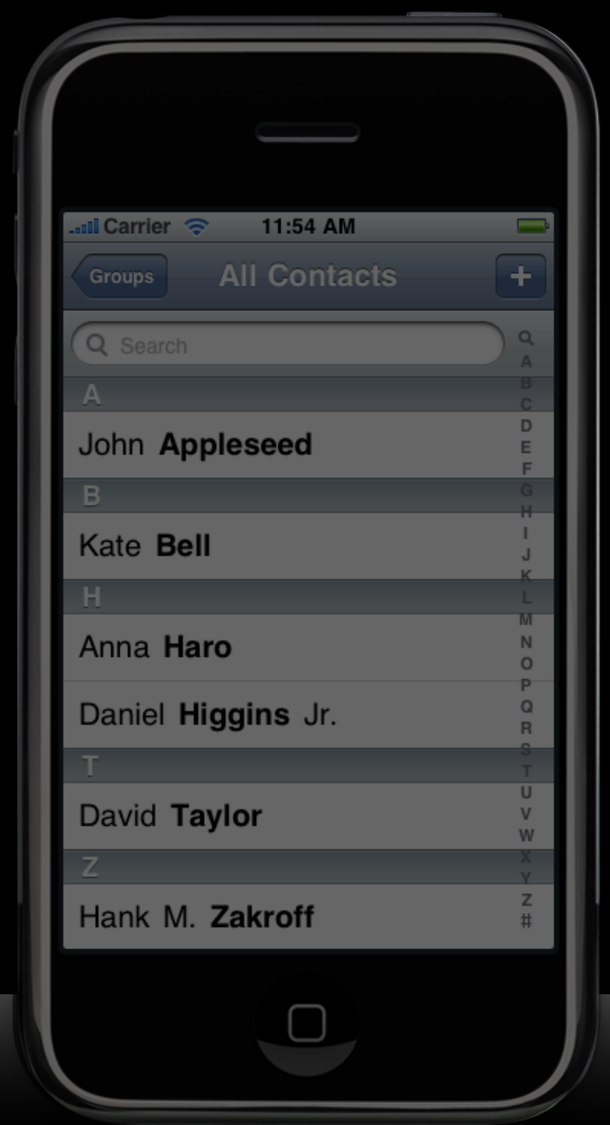
Single Screen Application

Hierarchical Application

Tabbed Application



Single Screen Application



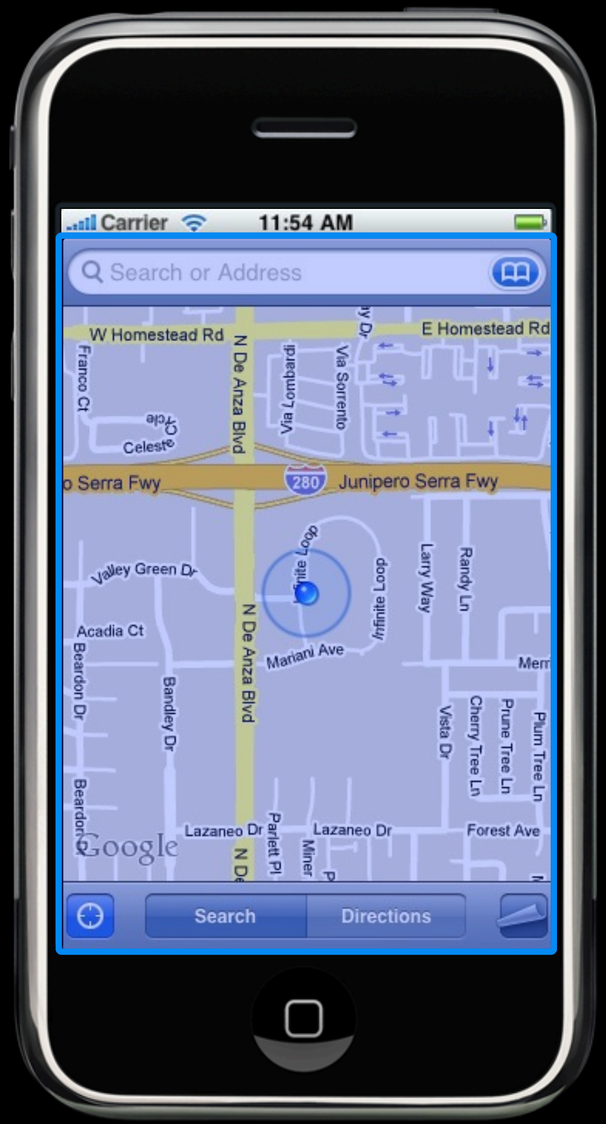
Hierarchical Application

Tabbed Application

View Controllers

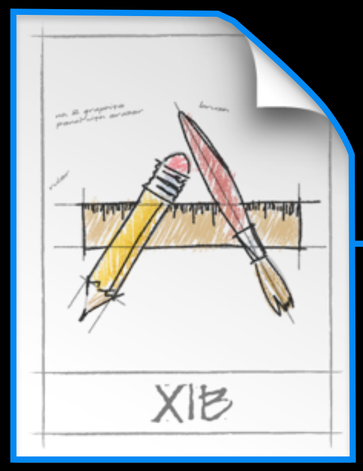
- Responsible for a single view
- You provide its view
  - `-loadView`
  - Interface Builder document
- Responds to memory warnings

View Controllers



View Controller

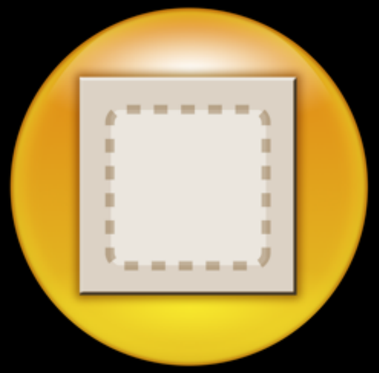
View Controllers



View Controller

One-to-One

View Controllers



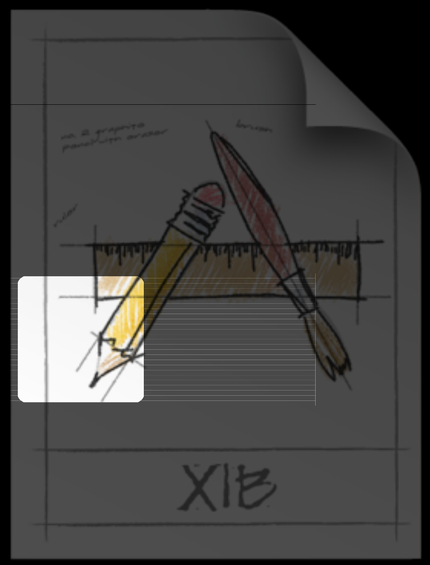
Static

- Useful for initial view controllers
- Typically in MainWindow.xib

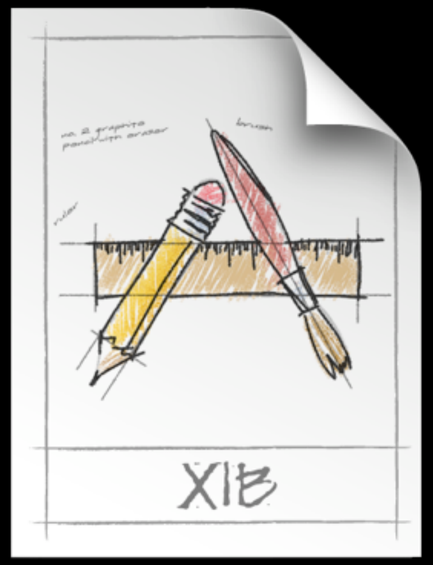
On Demand

- Instantiated in code as needed
- In response to user action

Application Organization

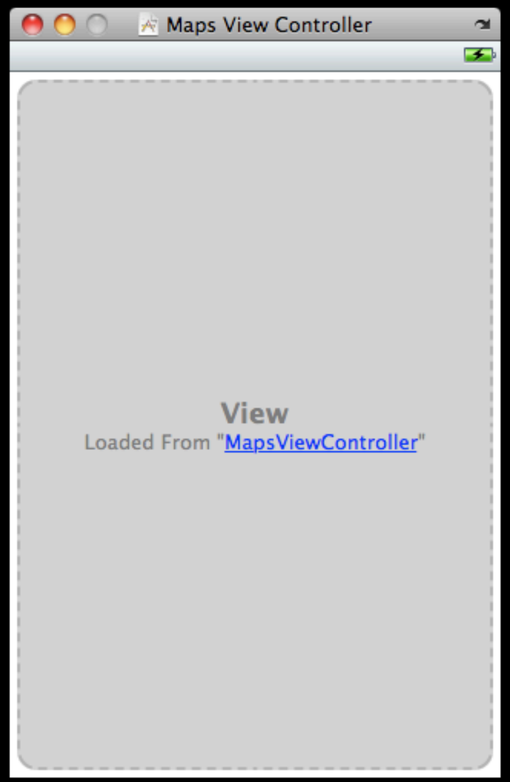


MainWindow

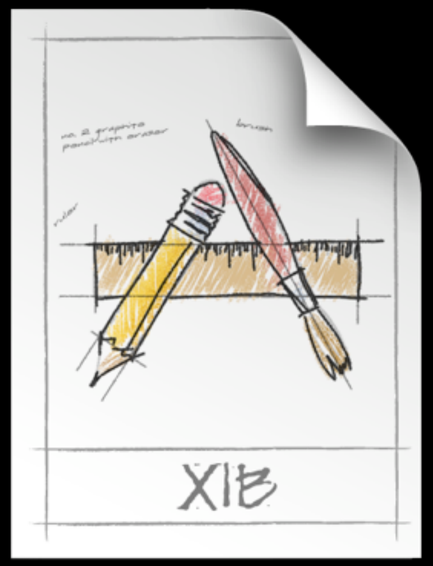


MapsViewController

Application Organization

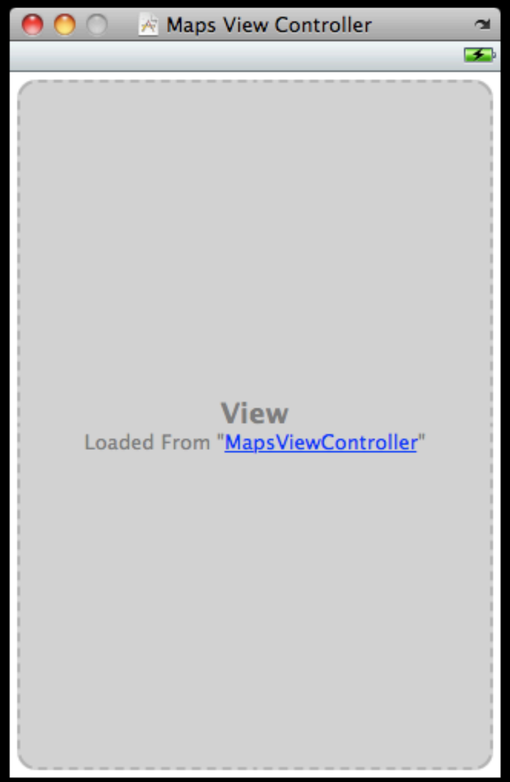


MainWindow

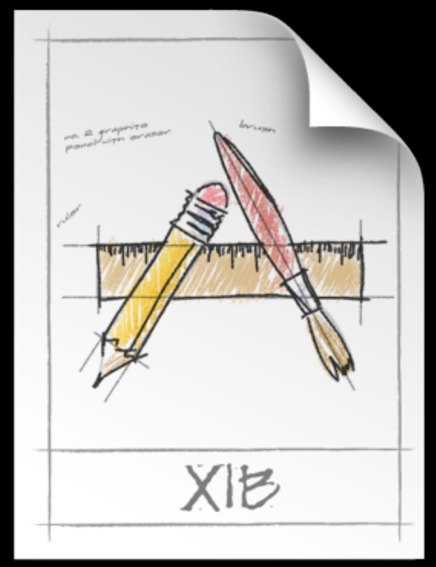


MapsViewController

Application Organization

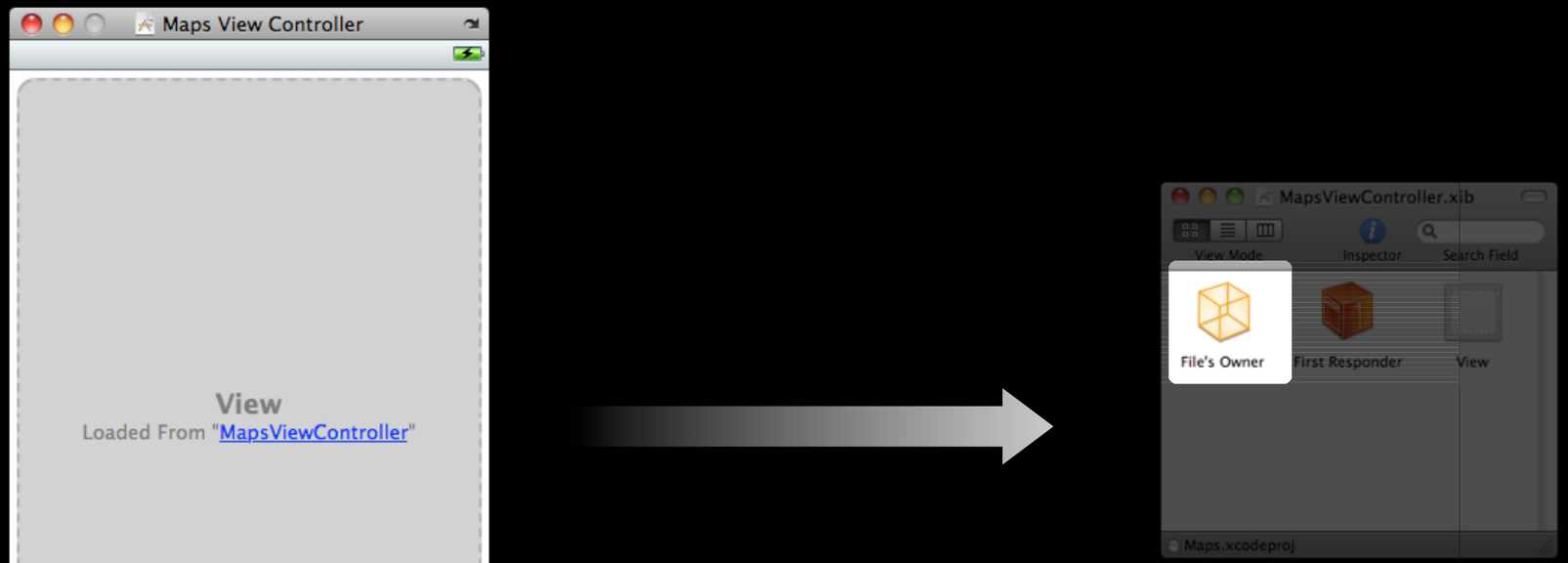


MainWindow



MapsViewController

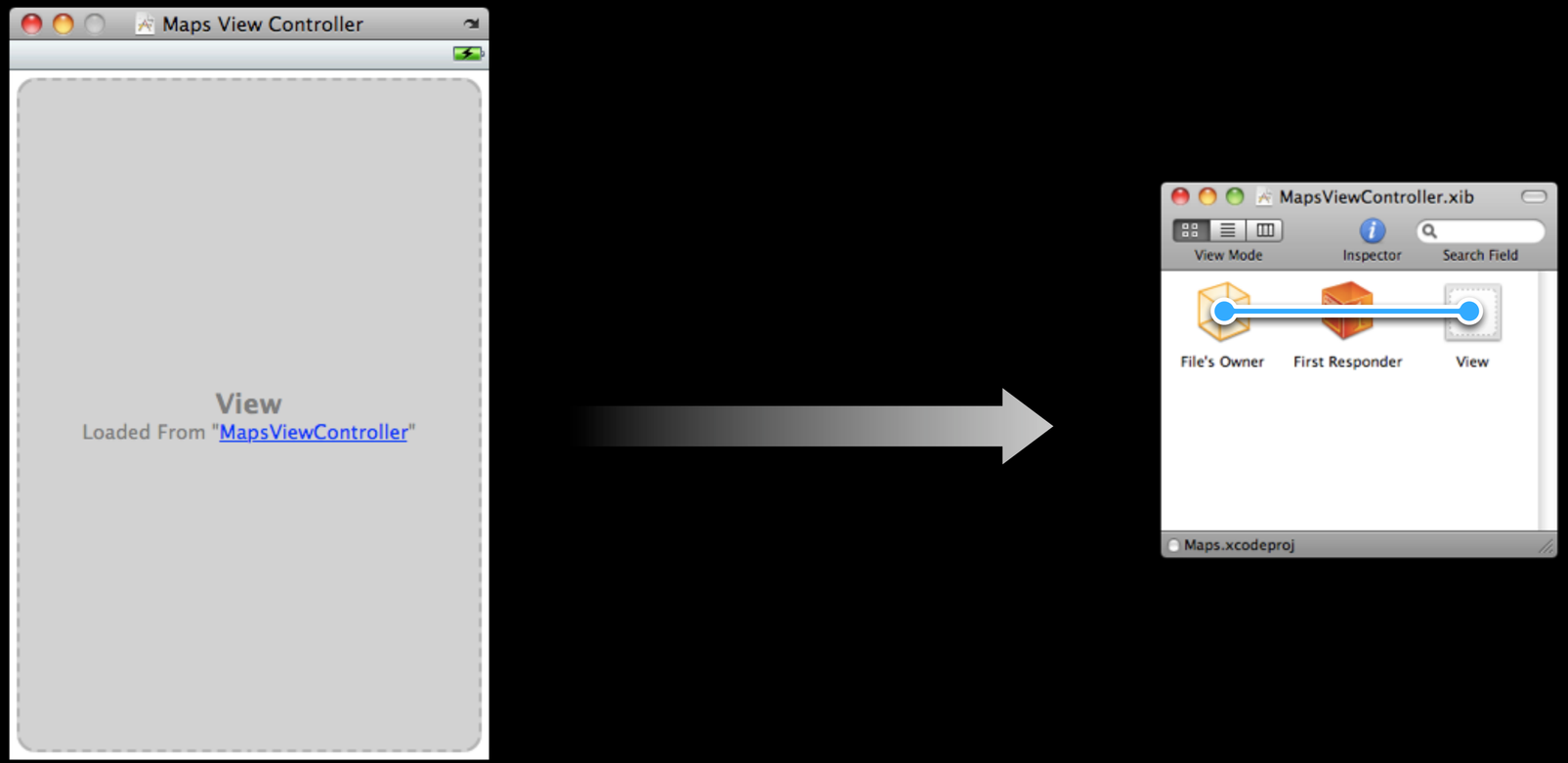
Application Organization



MainWindow

MapsViewController

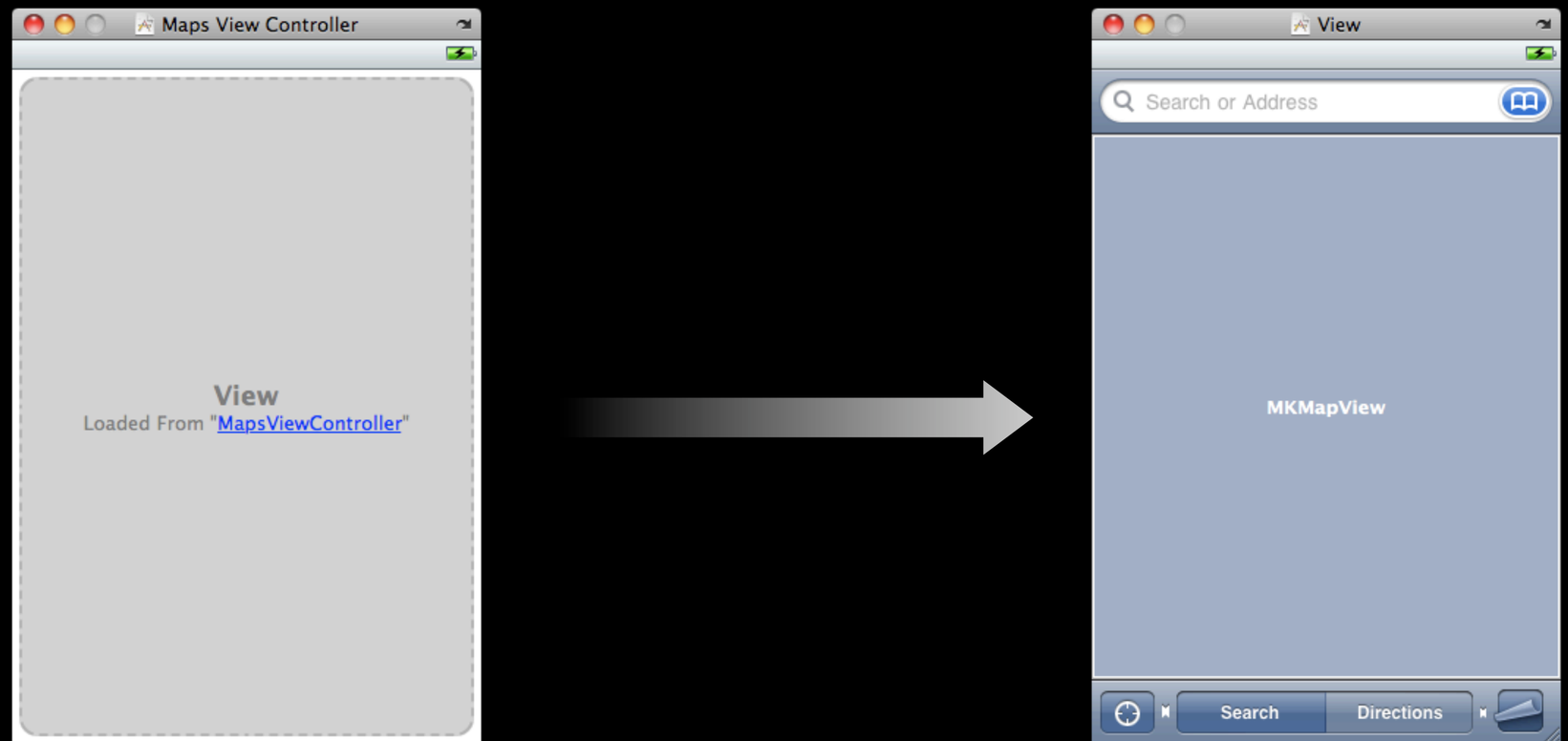
Application Organization



MainWindow

MapsViewController

Application Organization



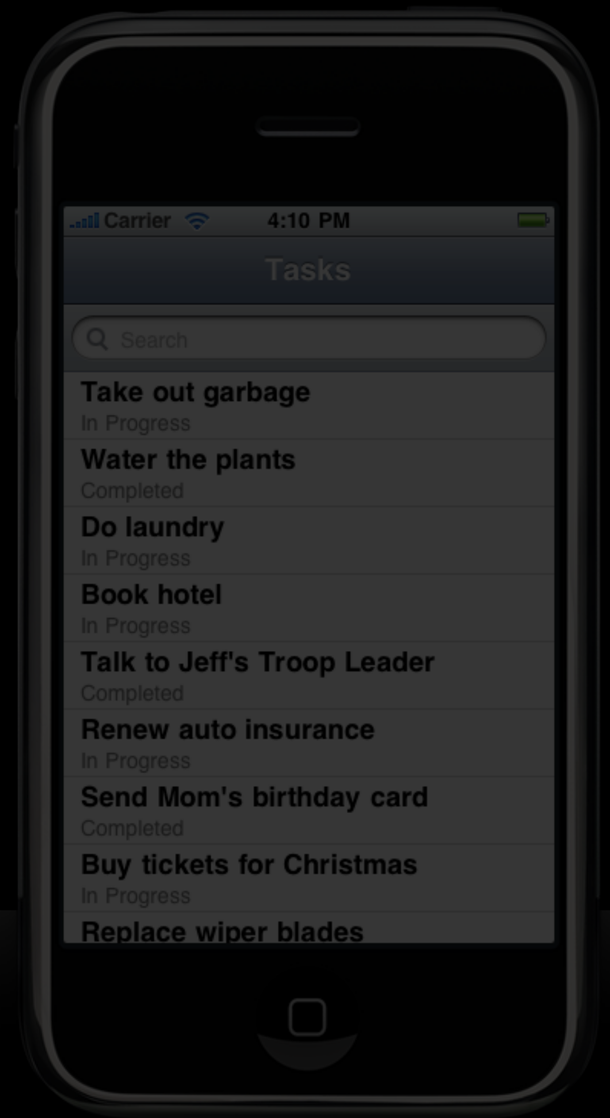
MainWindow

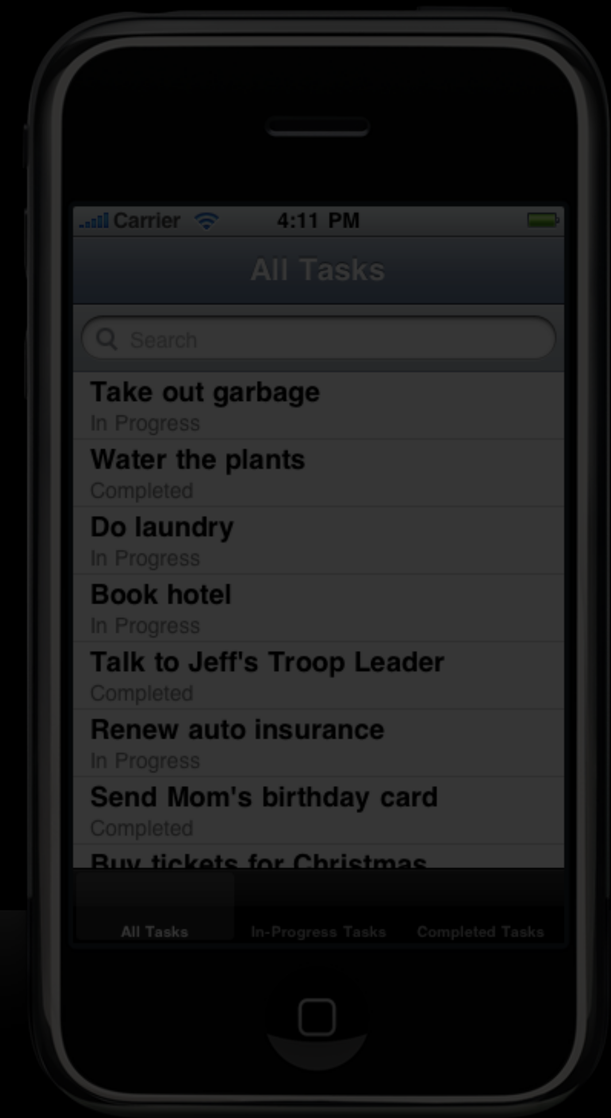
MapsViewController

Why Two Interface Builder Documents?

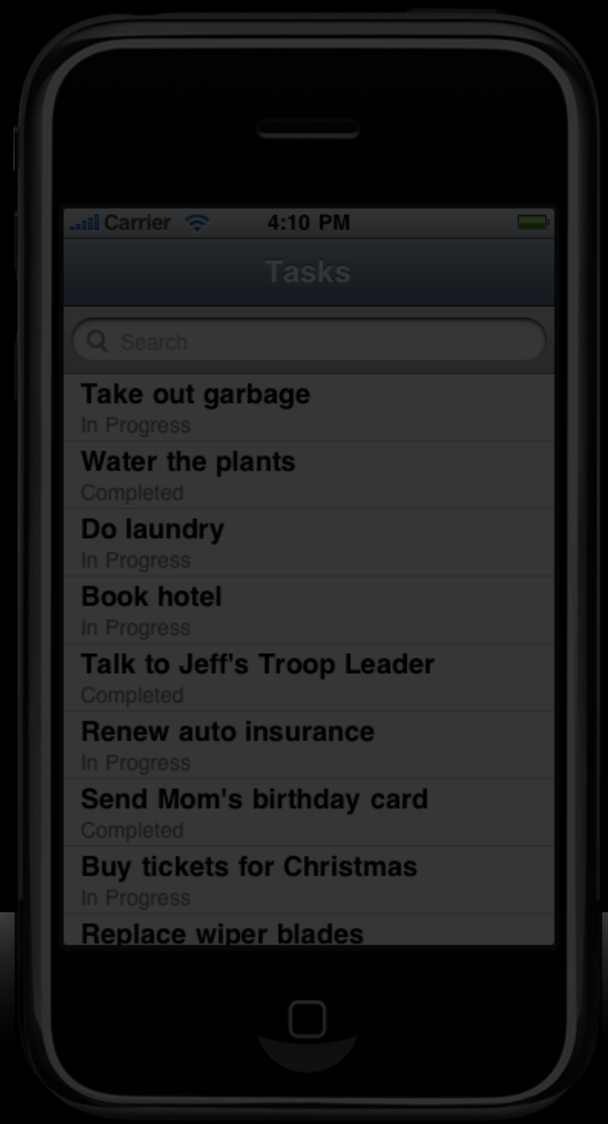
- Lazy loading and unloading
- Refactorability
- Clean separations

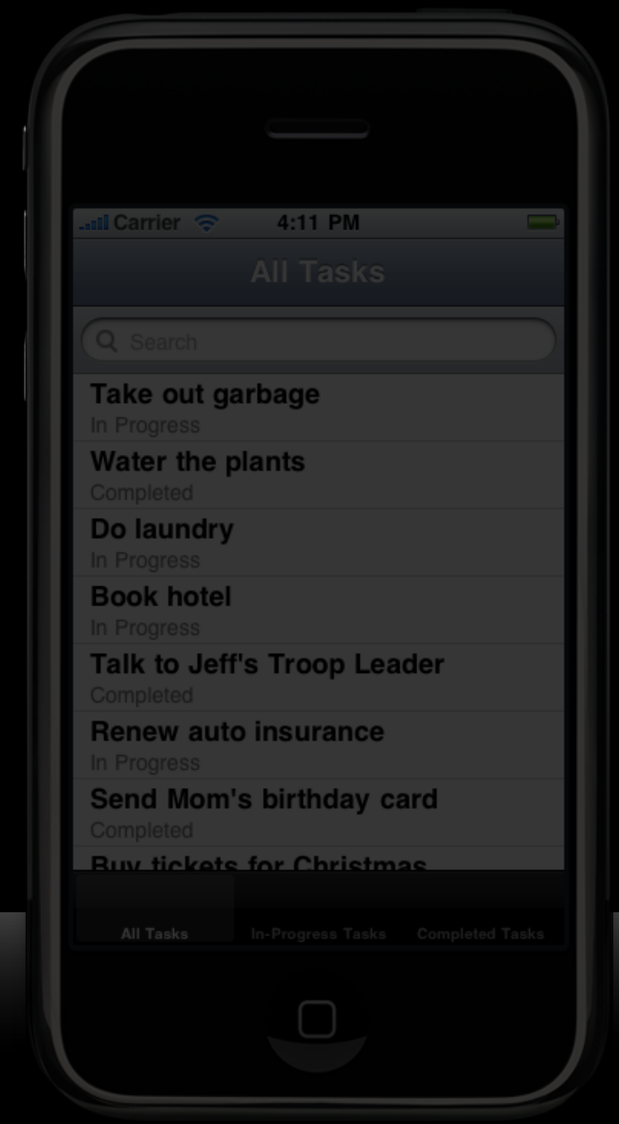
Today's Application



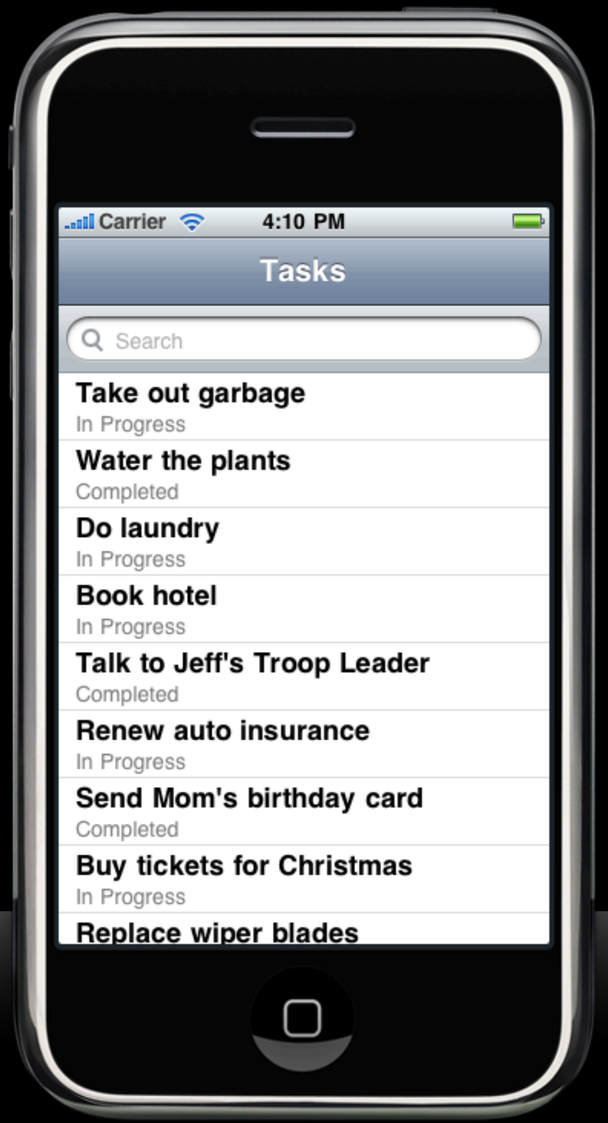


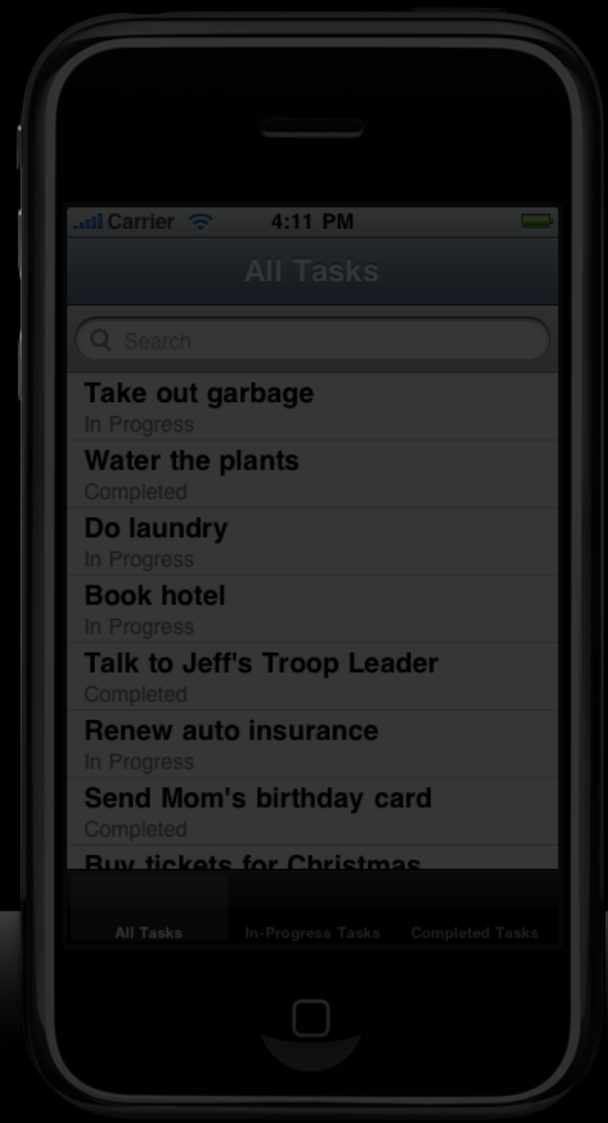
Today's Application



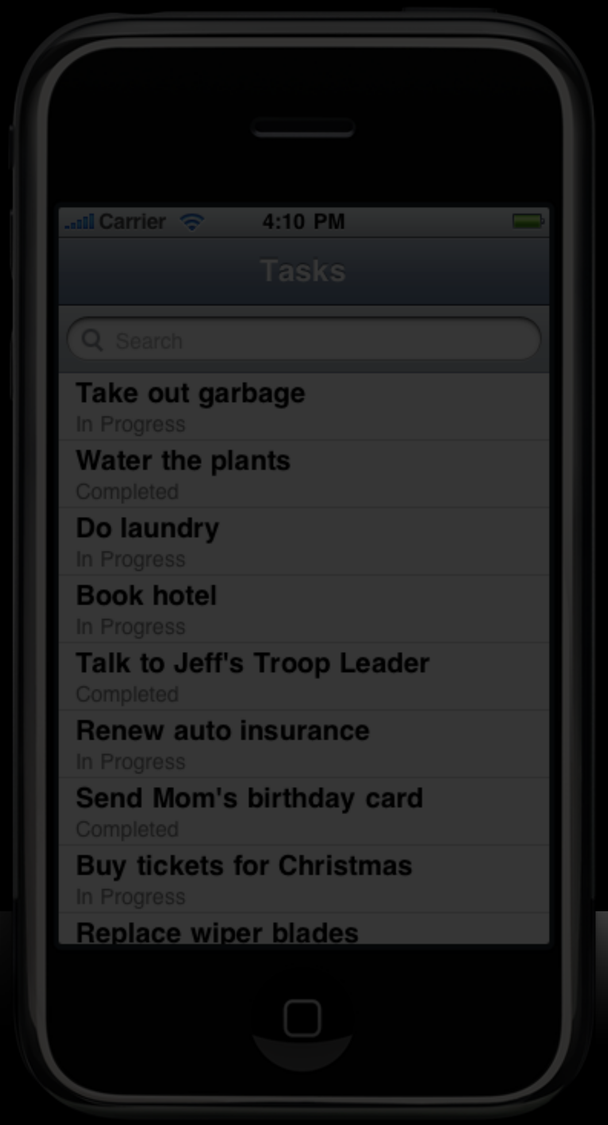


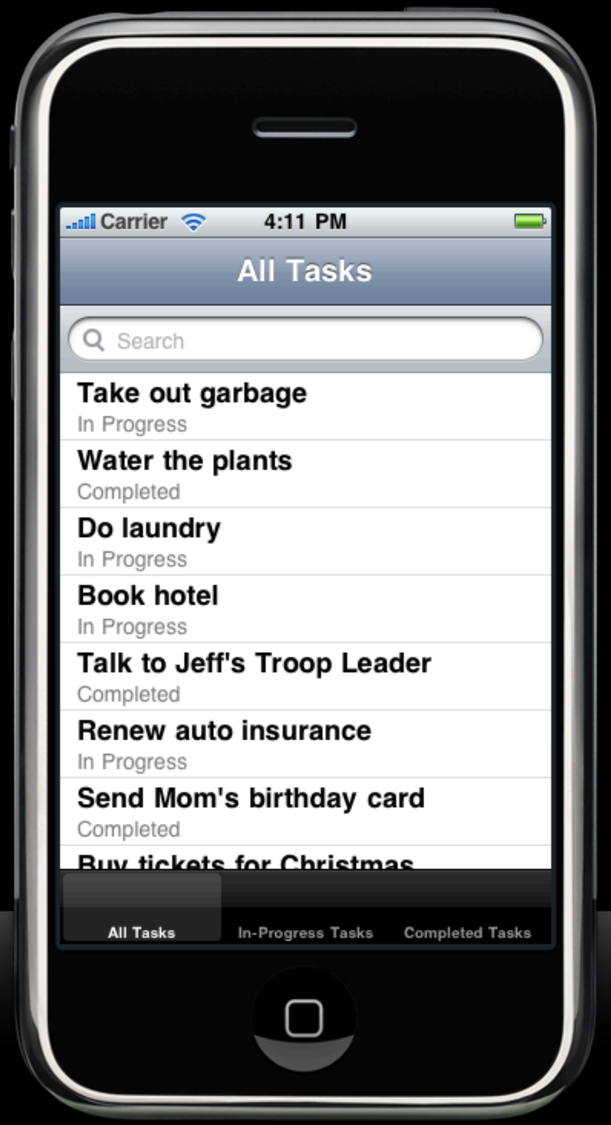
Today's Application





Today's Application





Today's Application

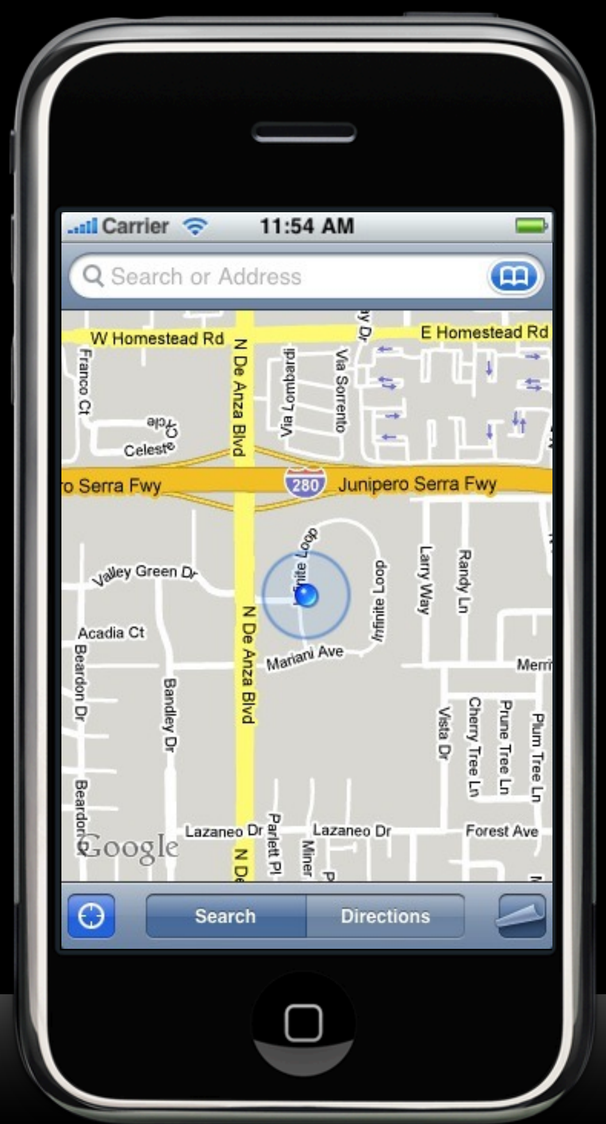
Demo

Building a single screen application

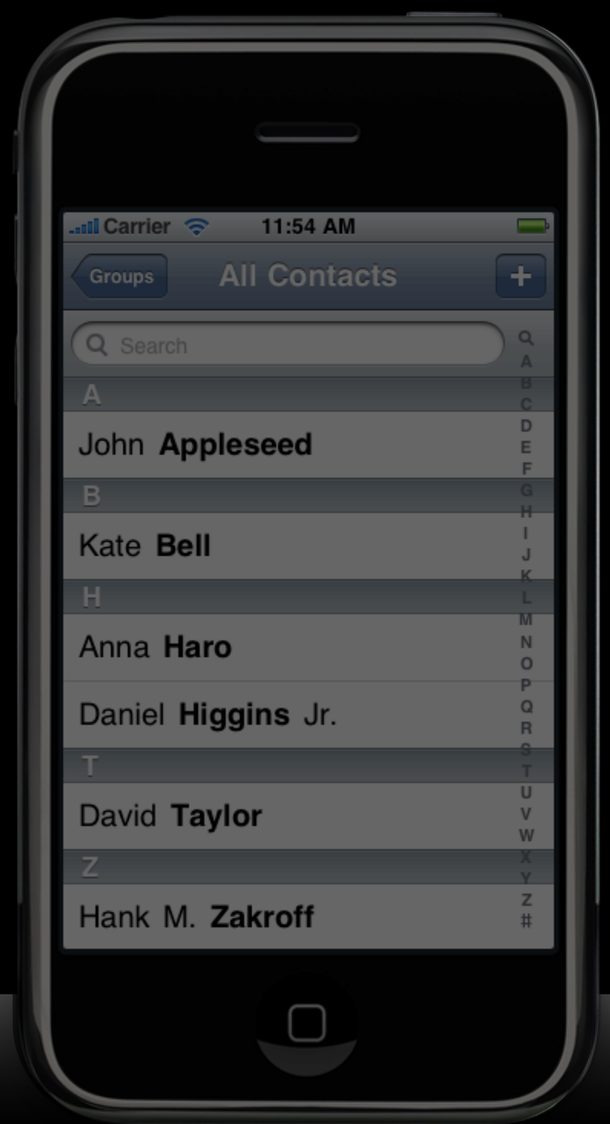
Single Screen Application

Summary

- View controllers responsible for a single view
- Load view from Interface Builder document by default
- Two ways to create view controllers, both work with Interface Builder
- Lazy loading and unloading through clean separation

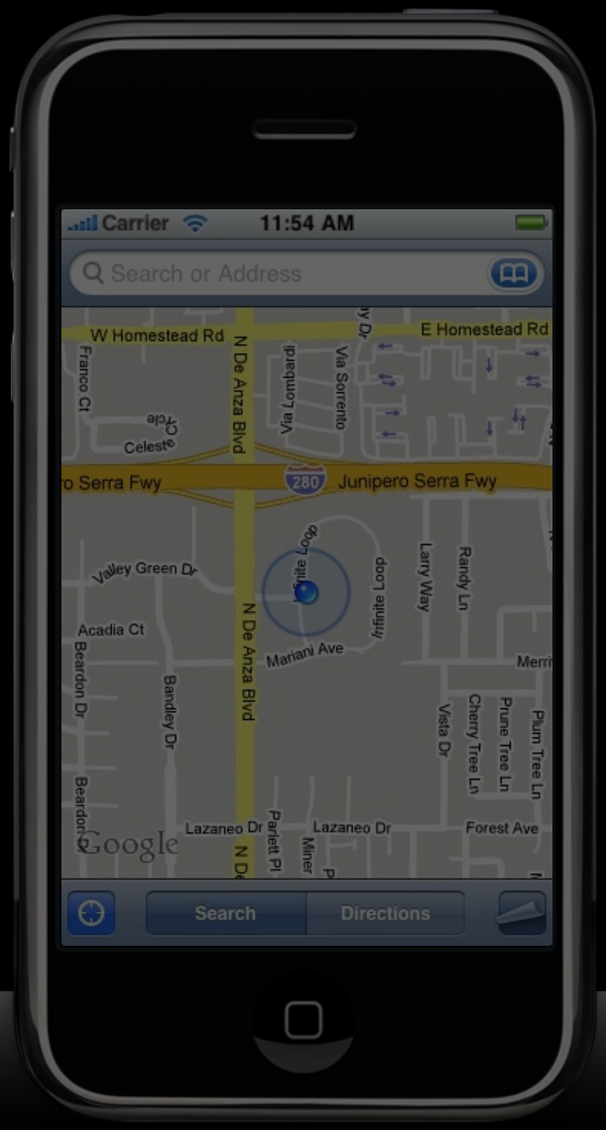


Single Screen Application



Hierarchical Application

Tabbed Application



Single Screen Application

Hierarchical Application

Tabbed Application

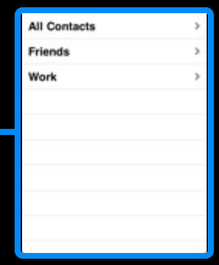
Carrier
11:54 AM
Groups
All Contacts
+
Search
A
John Appleseed
B
Kate Bell
H
Anna Haro
Daniel Higgins Jr.
T
David Taylor
Z
Hank M. Zakroff
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z #

Hierarchical Application

Example—Contacts

Navigation Controller

Groups View Controller

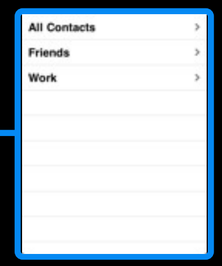


Hierarchical Application

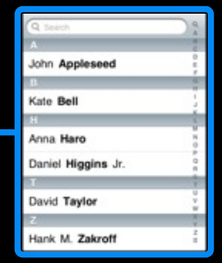
Example—Contacts

Navigation Controller

Groups View Controller



Contacts View Controller

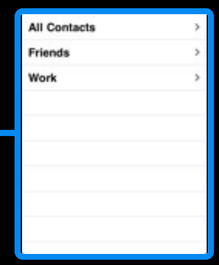


Hierarchical Application

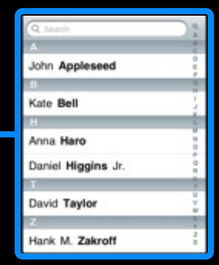
Example—Contacts

Navigation Controller

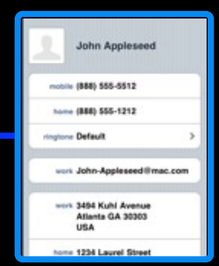
Groups View Controller



Contacts View Controller



Details View Controller



Hierarchical Application

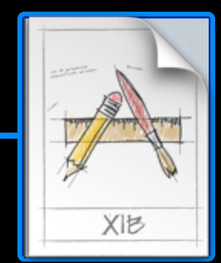
Example—Contacts

Navigation Controller

Groups View Controller

Contacts View Controller

Details View Controller



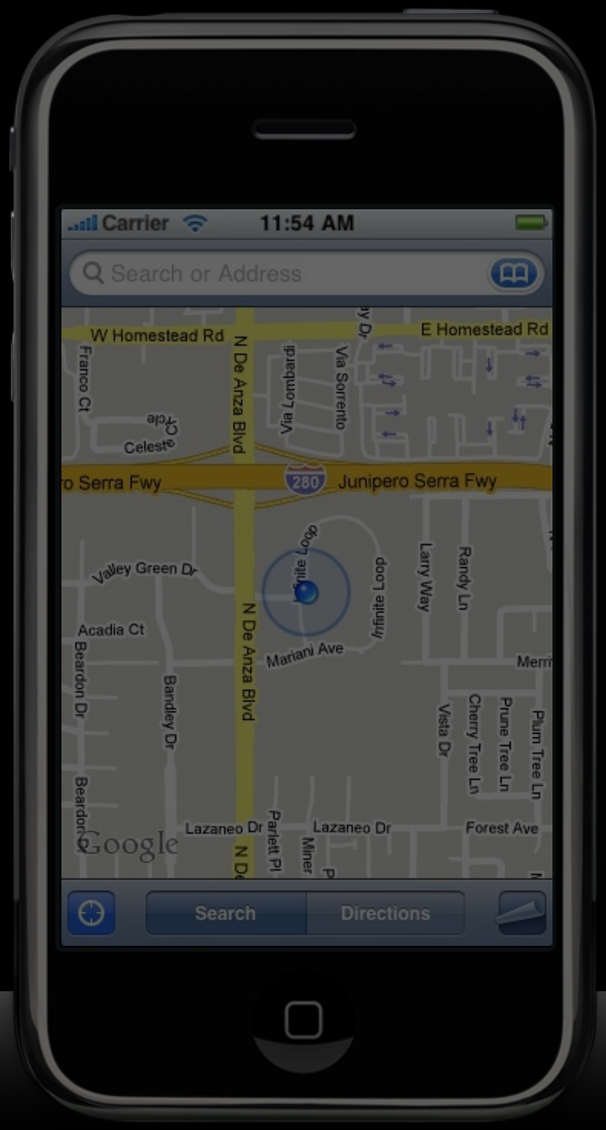
Demo

Building a hierarchical application

Hierarchical Application

Summary

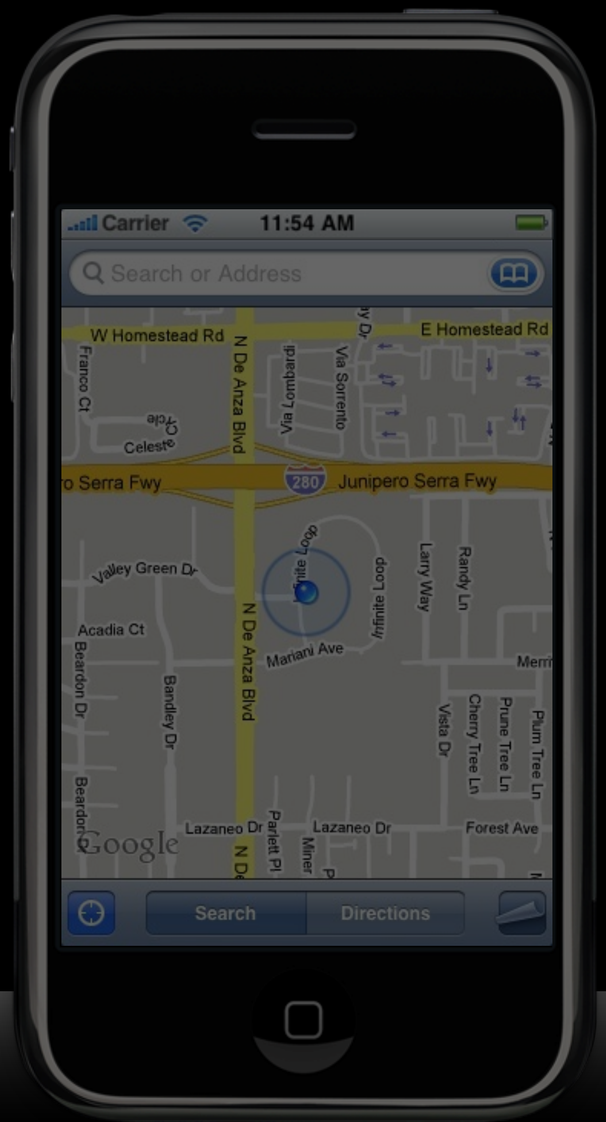
- Add static view controllers to MainWindow.xib
- Instantiate additional view controllers in code



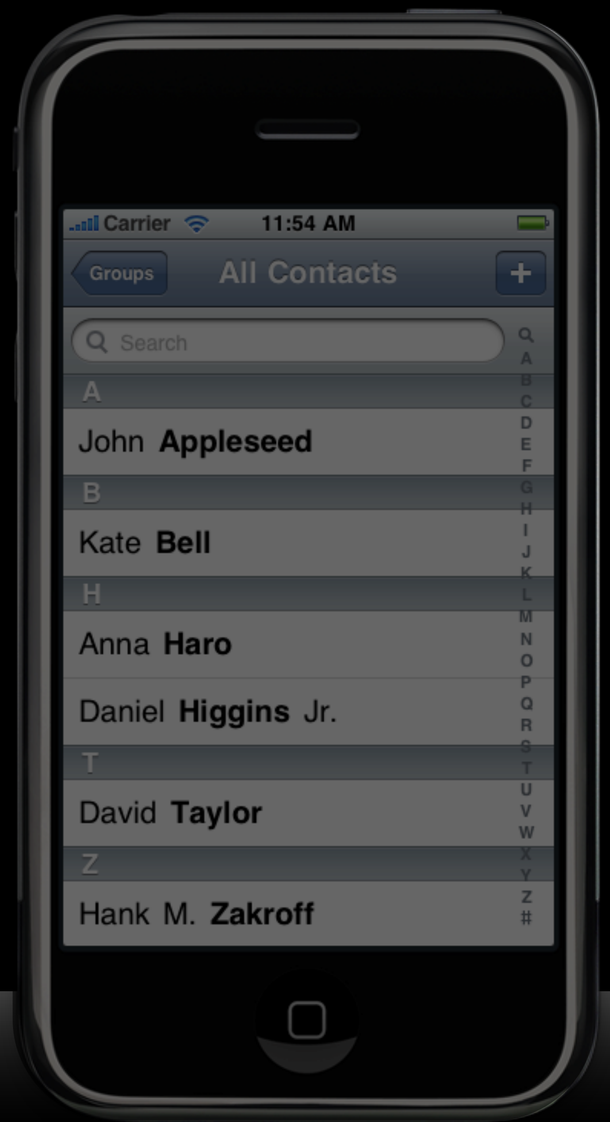
Single Screen Application

Hierarchical Application

Tabbed Application



Single Screen Application



Hierarchical Application

Tabbed Application

11:18 AM
Edit
World Clock
+
Cupertino
11:18 AM
Today
World Clock
Alarm
Stopwatch
Timer

Tabbed Application

Example—Clock

Tab Bar Controller

Tabbed Application

Example—Clock

World Clock View Controller

Alarm View Controller

Stopwatch View Controller

Timer View Controller

Tab Bar Controller

Tabbed Application

Example—Clock

World Clock View Controller

Alarm View Controller

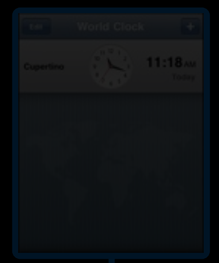
Stopwatch View Controller

Timer View Controller

Tab Bar Controller

Tabbed Application

Example—Clock



World Clock View Controller

Alarm View Controller

Stopwatch View Controller

Timer View Controller

Tab Bar Controller

Tabbed Application

Example—Clock

World Clock View Controller

Alarm View Controller

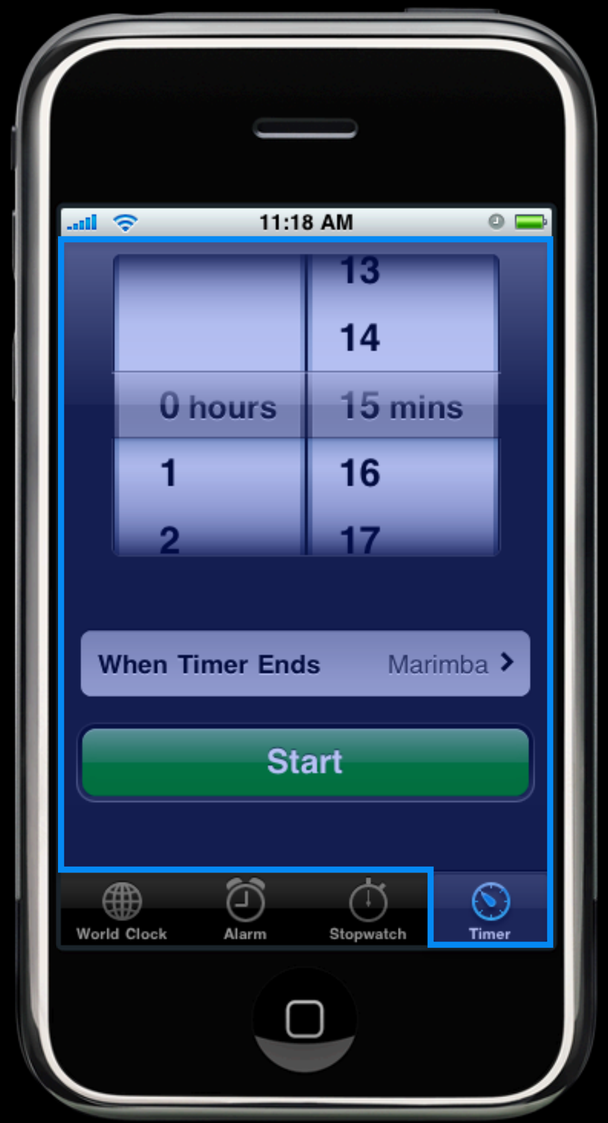
Stopwatch View Controller

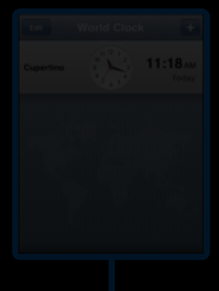
Timer View Controller

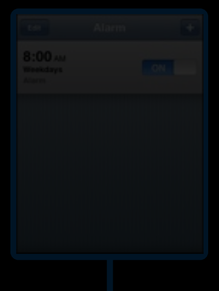
Tab Bar Controller

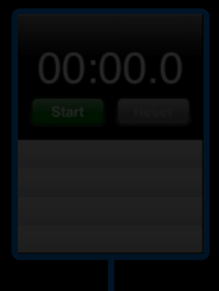
Tabbed Application

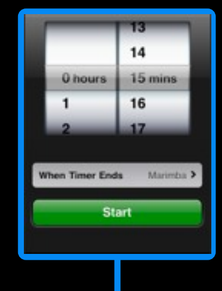
Example—Clock











World Clock View Controller

Alarm View Controller

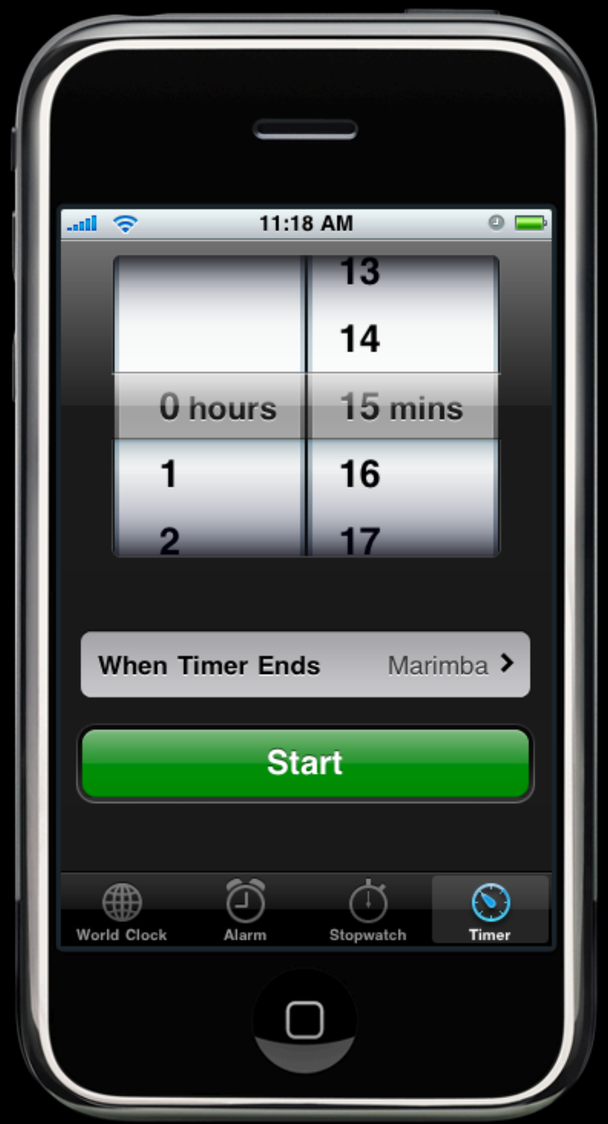
Stopwatch View Controller

Timer View Controller

Tab Bar Controller

Tabbed Application

Example—Clock



World Clock View Controller

Alarm View Controller

Stopwatch View Controller

Timer View Controller

Tab Bar Controller

Demo

Building a tabbed application

Tabbed Application

Summary

- Add tab bar controller to MainWindow.xib
- Add tab view controllers directly to tab bar controller

Designing iPhone Applications

Three points to remember…

- Comprised of a hierarchy of view controllers
- View controllers responsible for one view, loaded from Interface Builder document
- When to create view controllers in Interface Builder or in code

More Information

Michael Jurewitz
Developer Tools Evangelist
jurewitz@apple.com

Documentation
Mac OS X Human Interface Guidelines
http://developer.apple.com/ue

Interface Builder User Guide
http://developer.apple.com/documentation/DeveloperTools/Conceptual/IB_UserGuide/Introduction/Introduction.html

Related Sessions

Getting Started with Interface Builder	Pacific Heights Wednesday 9:00AM
iPhone View Controller Techniques	Presidio Thursday 5:00PM

Labs

Getting Started With Interface Builder	iPhone Lab A Wednesday 2:00PM
iPhone Application Design Using Interface Builder	iPhone Lab C Thursday 2:00PM

Q&A

WWDC Session Survey

You can rate your sessions on the WWDC Attendee Site.

Survey forms are located on each session description page at:

developer.apple.com/wwdc/attendee

WWDC09